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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,200	04/12/2001	James David Duford	JORC117322	3493
26389	7590	04/29/2004	EXAMINER	
CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC			PETERSON, KENNETH E	
1420 FIFTH AVENUE			ART UNIT	
SUITE 2800			PAPER NUMBER	
SEATTLE, WA 98101-2347			3724	

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/973,200	DUFORD ET AL	
	Examiner	Art Unit	
	Kenneth E Peterson	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the **correspondence address** --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-26 is/are pending in the application.
- 4a) Of the above claim(s) 20-23 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-19, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Pri rity under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16, 18, 19, 24 and 25 are rejected under 35 U.S.C. 103(a).

In the art of circular saws, it is known to position the motor within the diameter of the saw blade, and for the saw blade and motor to be narrower than the base plate. Examples of such prior art saws are Maier et al.'170, Nguyen et al.'884, Fiala'786, Braunbach et al.'935 and Kirn et al.'526. Many of these saws also teach a pivotable housing.

None of the above examples discuss the length-to-diameter ratios of the motor. However, Peot et al.'715 discusses in column 3 that a motor appropriate for a circular saw should have a length of between 1.8" and 2.5", and a diameter of between 2.25" and 2.75". These ranges constitute a length-to-diameter ratio of *substantially* 1:1.5. It would have been obvious to one of ordinary skill in the art to have used a motor similar to Peot's motor on any of the above examples saws, in order to achieve relatively high horsepower in a relatively small motor size (lines 35, 36, column 3).

The exact width of the device is a design choice which can be optimized for any given use, and it would have been obvious to one of ordinary skill for any of the above references to have selected any number of different widths. It is noted that the 5" width recited by Applicant are typical in the art. For example, Examiner testifies that his own circular saw, purchased in 1998, has a base width of 5 and 3/8 inches, which is

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"substantially" 5 inches. When choosing saw size (and with it base width), the designer must take into account the thickness of the work being cut, the openness (or confinements) of the work area and the hardness of the material (and the requisite horsepower required to cut it).

3. Claims 16-19,24 and 25 are rejected under 35 U.S.C. 103(a).

In the art of circular saws, it is known to position the motor within the diameter of the saw blade, and for the saw blade and motor to be narrower than the base plate. Examples of such prior art saws are Maier et al.'170, Nguyen et al.'884, Fiala'786, Braunbach et al.'935 and Kirn et al.'526. Many of these saws also teach a pivotable housing.

None of the above examples discuss the length-to-diameter ratios of the motor. Examiner takes Official Notice that it is well known for tools to use motors having large length-to-diameter ratios. An example of such is Embree, who shows a motor having a length-to-diameter ratio of 1:7.3 (lines 23-29, column 6) and discusses adding stacks of stator laminates (thus reducing the ratio) to achieve the desired power level. From this, it is clear that any number of different length-to-diameter ratios are obvious, including 1:4.5. It would have been obvious to one of ordinary skill in the art to have modified any of the above references to use a known large diameter motor (for example, Embree's motor), in order to "decrease unwanted noise and increase operating efficiency" (see Embree's abstract and column 1).

The exact width of the device is a matter of design choice which can be optimized for any given use, and it would have been obvious to one of ordinary skill in the art for any of the above references to have selected any number of different base widths. It is noted that the 5" width recited by Applicant is typical in the art. For example, Examiner testifies that his own circular saw, purchased in 1998, has a base width of 5 and 3/8 inches, which is "substantially" 5 inches. When choosing saw size (and with it base width), the designer must take into account the thickness of the work being cut, the openness (or confinements) of the work area and the hardness of the material.

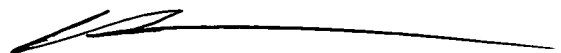
4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 703-308-2186. The examiner can normally be reached on Monday thru Thursday between 7am and 4pm.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

kp

April 27, 2004



KENNETH E. PETERSON
PRIMARY EXAMINER